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	Type	Stack Only Output	Stack Altered Output	Additive Primaries Switched	Stack Altered Behavior
1	RED/BLACK	RED	BLACK	1	Moderate loss in black density
2	RED/BLACK	BLACK	RED	1	High density black, nearly ideal red
3	RED/WHITE	RED	WHITE	2	Significant white loss (B,G)
4	RED/WHITE	WHITE	RED	2	Significant degradation in color coordinate
5	GREEN/BLACK	GREEN	BLACK	1	Moderate loss in black density
6	GREEN/BLACK	BLACK	GREEN	1	High density black, nearly ideal green
7	GREEN/WHITE	GREEN	WHITE	3	High white loss (B,R)
8	GREEN/WHITE	WHITE	GREEN	3	Severe degradation in color coordinate
9	BLUE/BLACK	BLUE	BLACK	1	Moderate loss in black density
10	BLUE/BLACK	BLACK	BLUE	1	High density black, nearly ideal blue
11	BLUE/WHITE	BLUE	WHITE	2	Significant white loss (G,R)
12	BLUE/WHITE	WHITE	BLUE	2	Significant degradation in color coordinate
13	CYAN/BLACK	CYAN	BLACK	2	Significant loss in black density
14	CYAN/BLACK	BLACK	CYAN	2	Significant passband loss (B,G)
15	CYAN/WHITE	CYAN	WHITE	1	Small ripple in red
16	CYAN/WHITE	WHITE	CYAN	1	Flat white, nearly ideal cyan
17	MAGENTA/BLACK	MAGENTA	BLACK	3	High loss in black density
18	MAGENTA/BLACK	BLACK	MAGENTA	3	High passband loss (B,R)
19	MAGENTA/WHITE	MAGENTA	WHITE	1	Small ripple in green
20	MAGENTA/WHITE	WHITE	MAGENTA	1	Flat white, nearly ideal magenta
21	YELLOW/BLACK	YELLOW	BLACK	2	Significant loss in black density
22	YELLOW/BLACK	BLACK	YELLOW	2	Significant passband loss(G,R)
23	YELLOW/WHITE	YELLOW	WHITE	1	Small ripple in blue
24	YELLOW/WHITE	WHITE	YELLOW	1	Flat white, nearly ideal yellow

FIG. 1

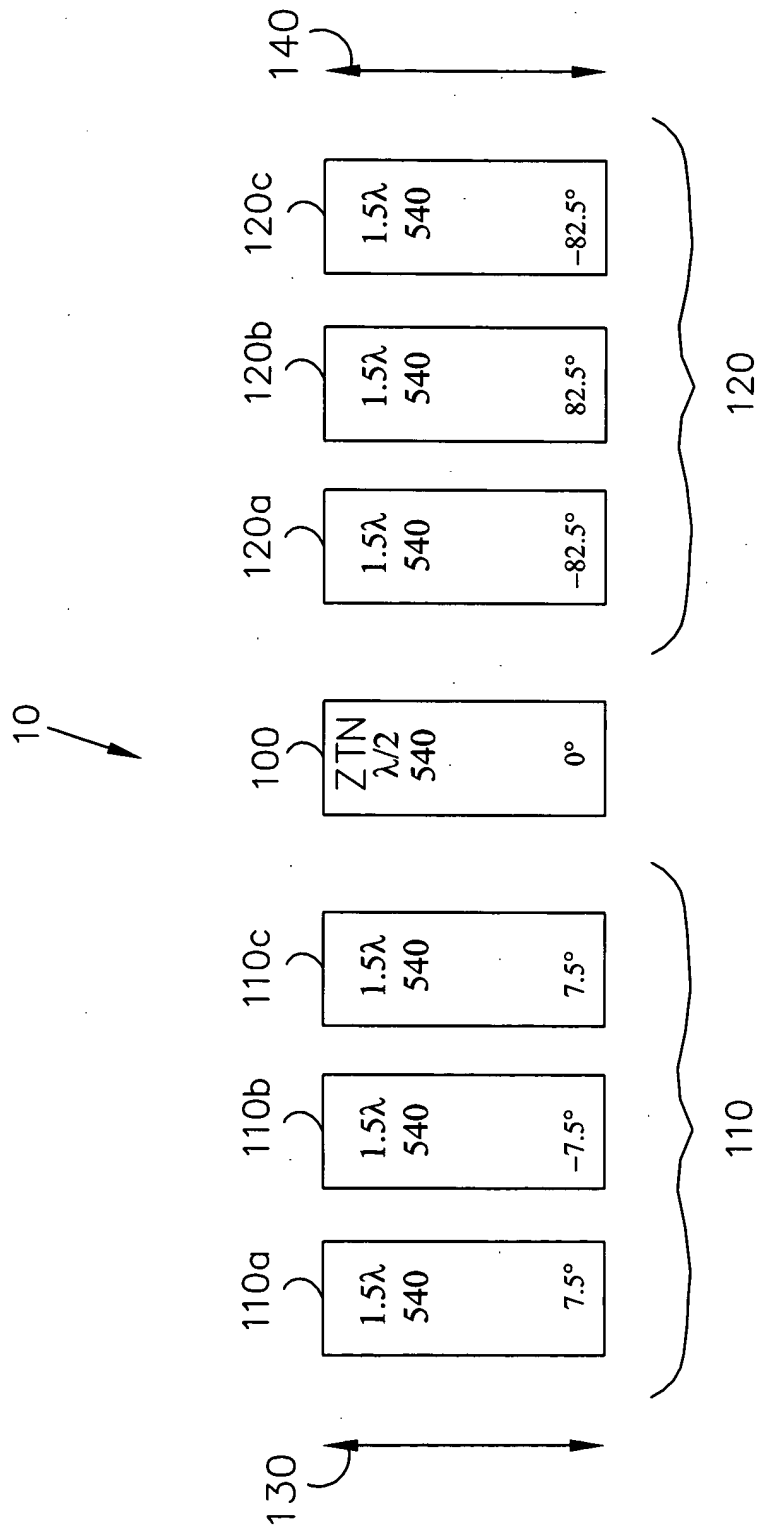


FIG. 2

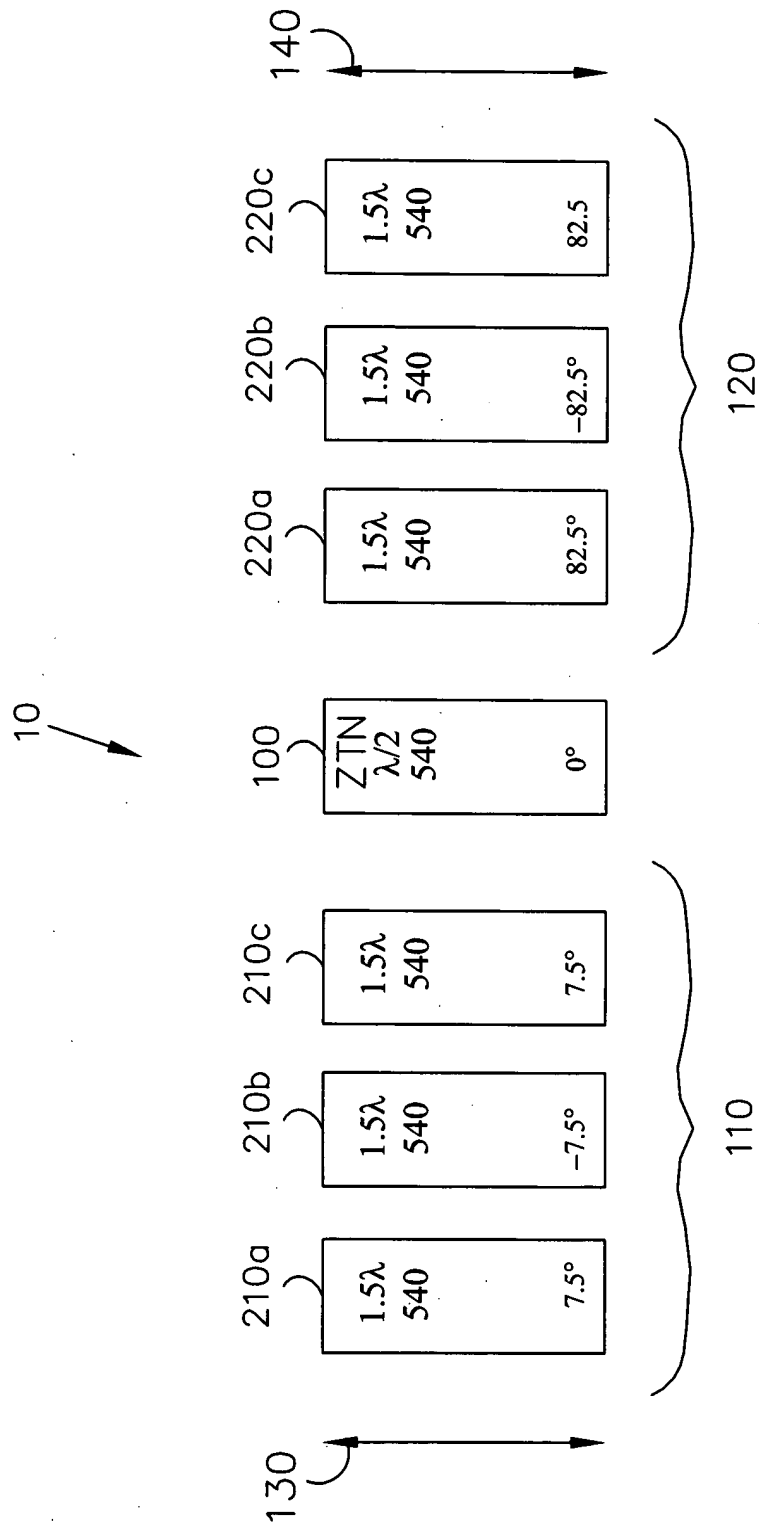


FIG. 3

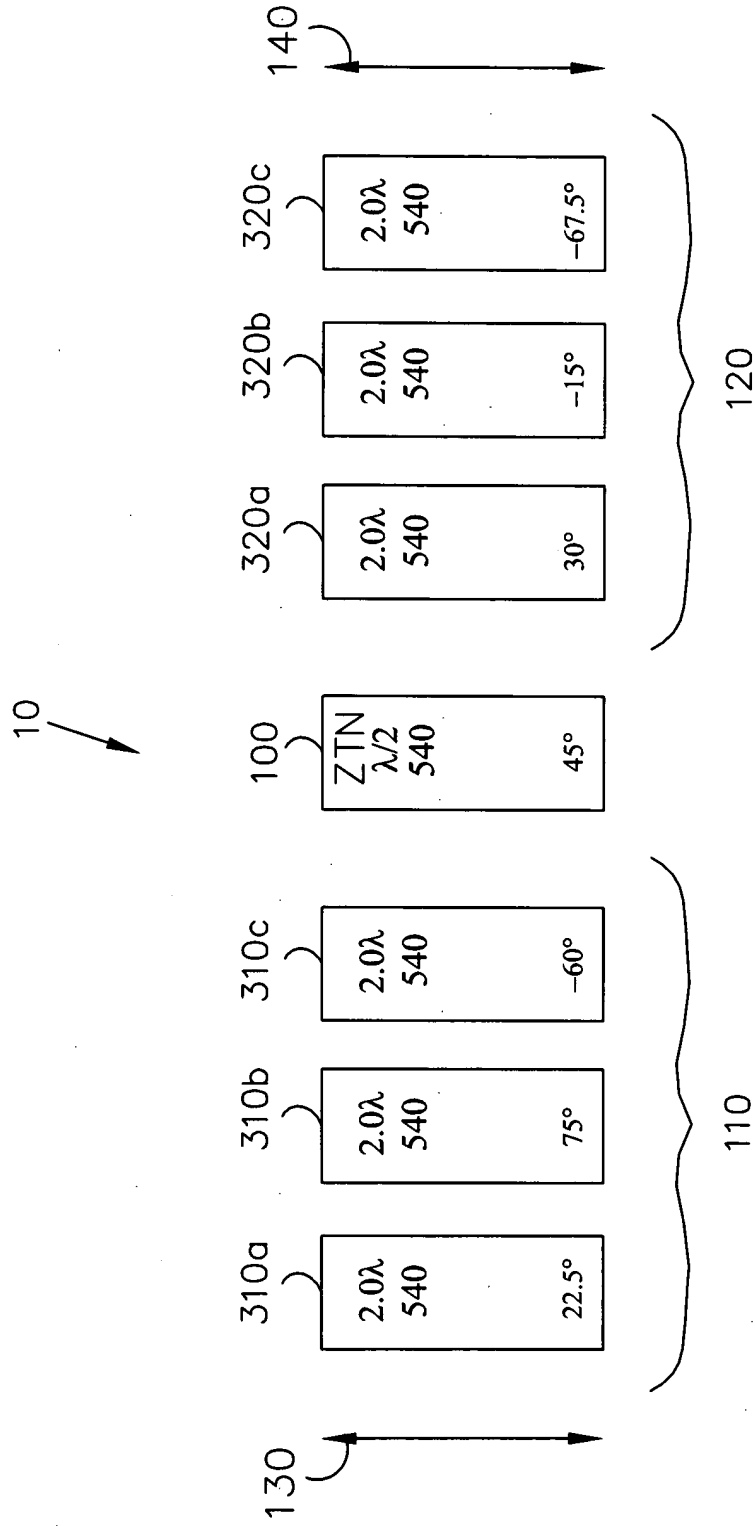


FIG. 4

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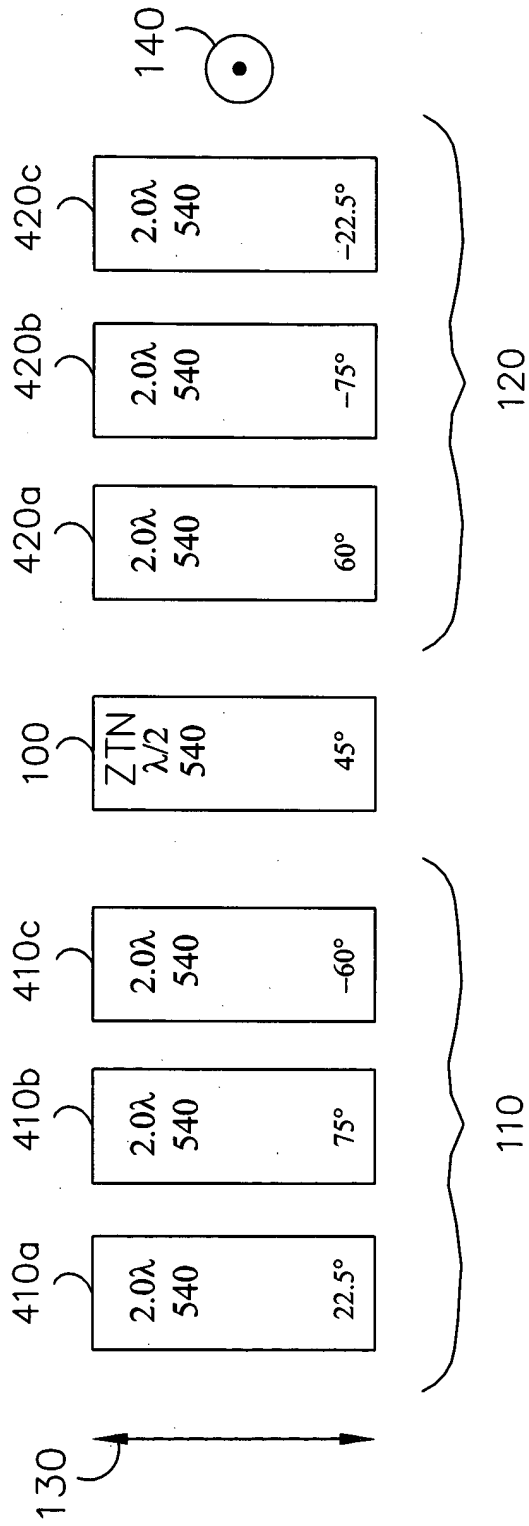


FIG. 5

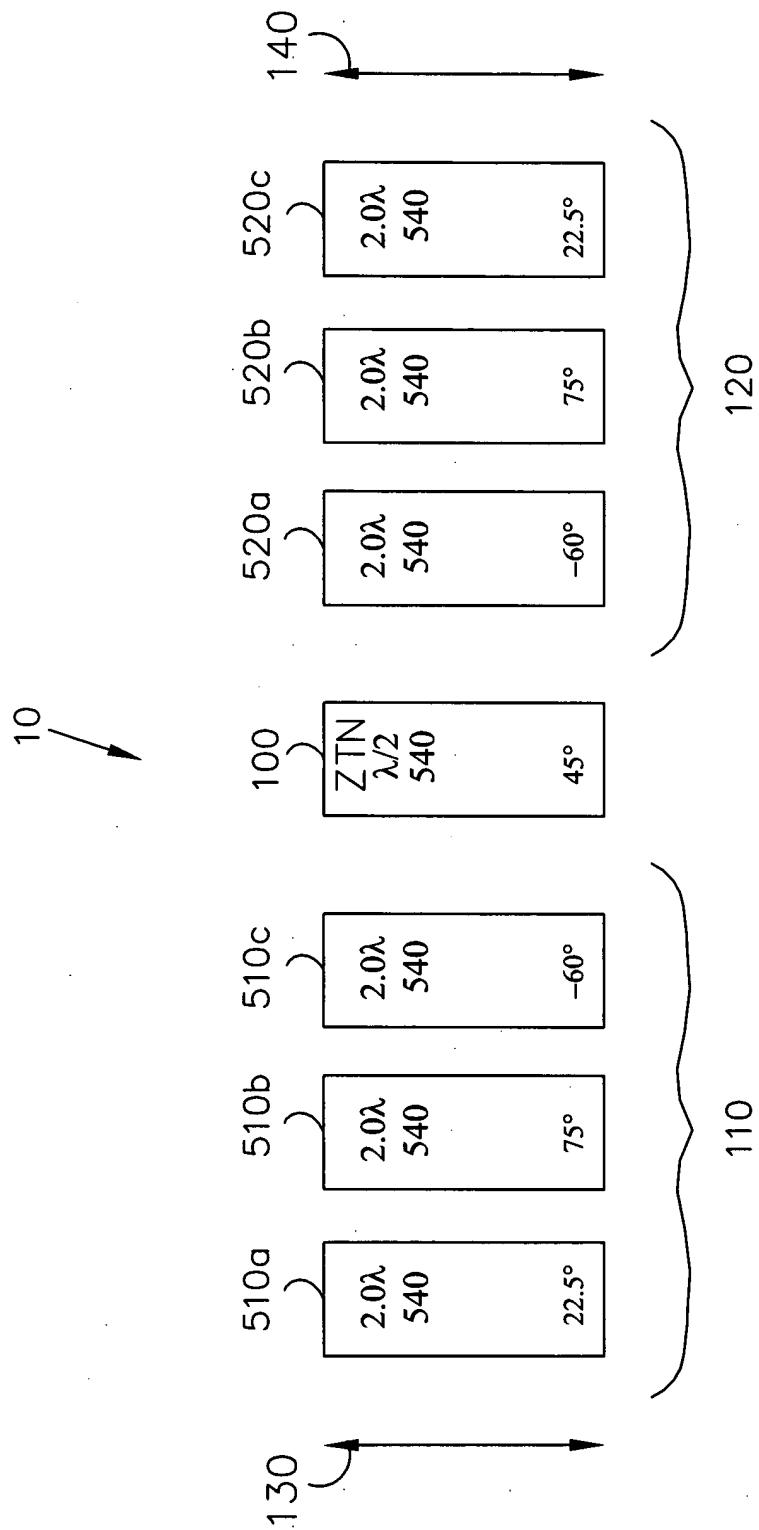


FIG. 6

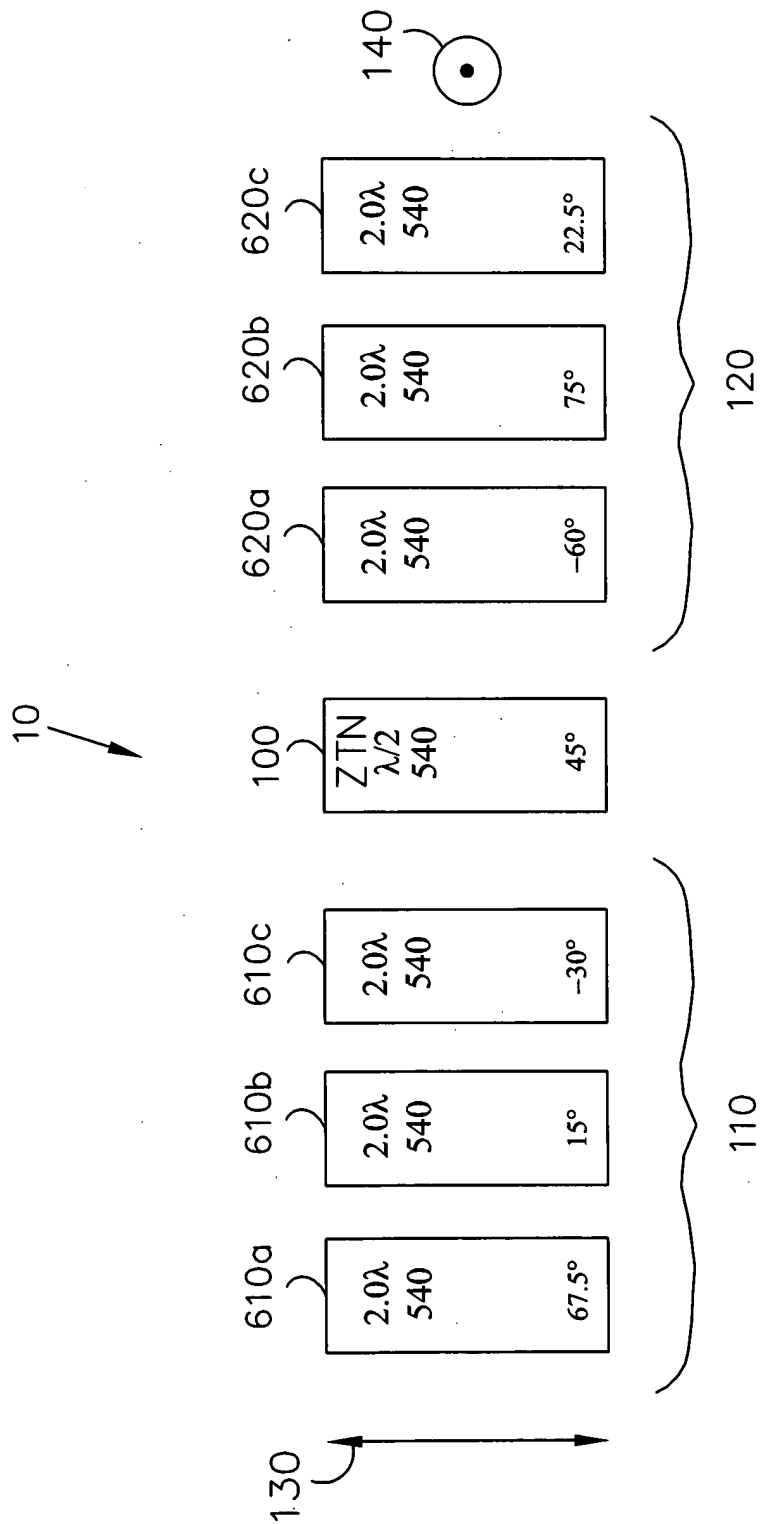


FIG. 7

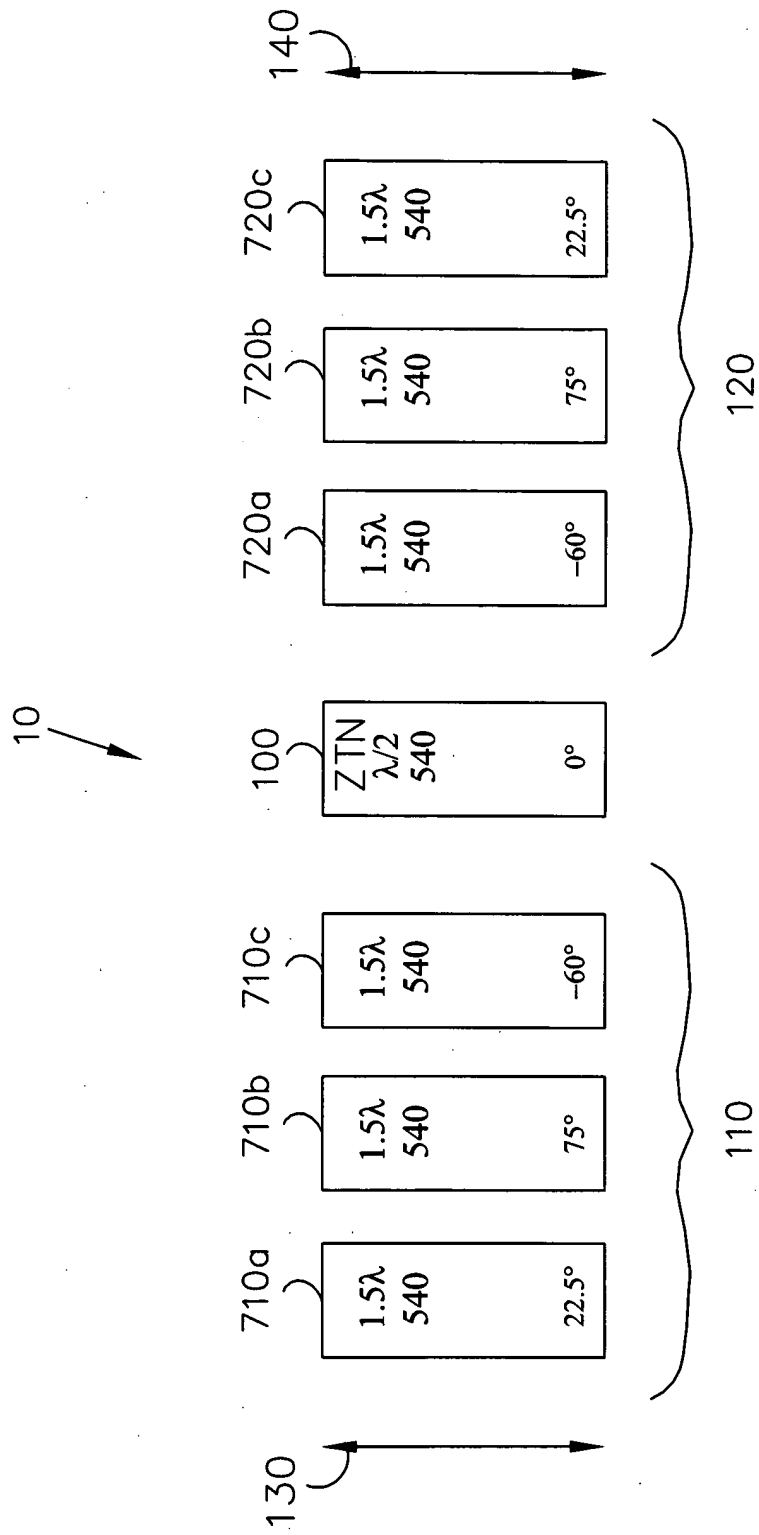


FIG. 8

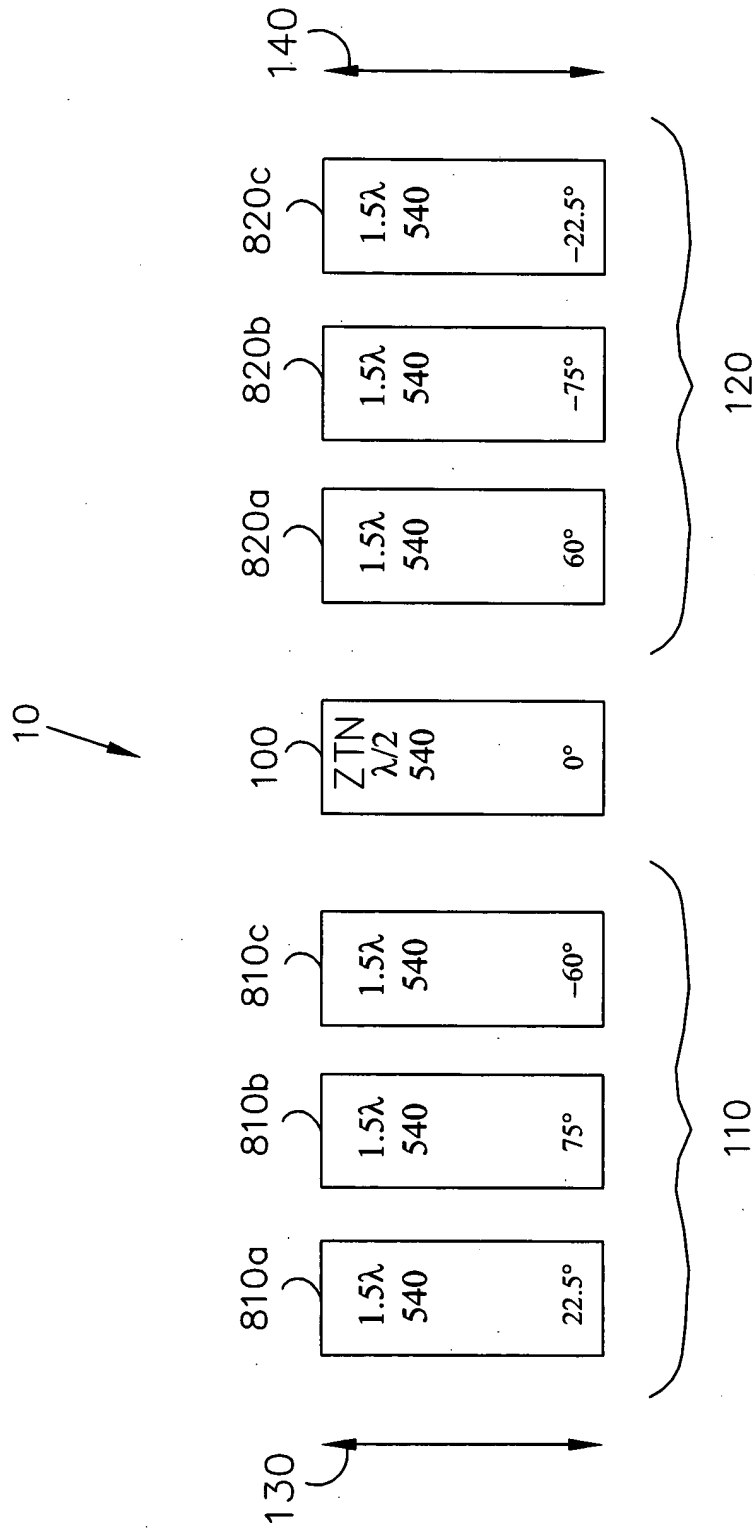


FIG. 9

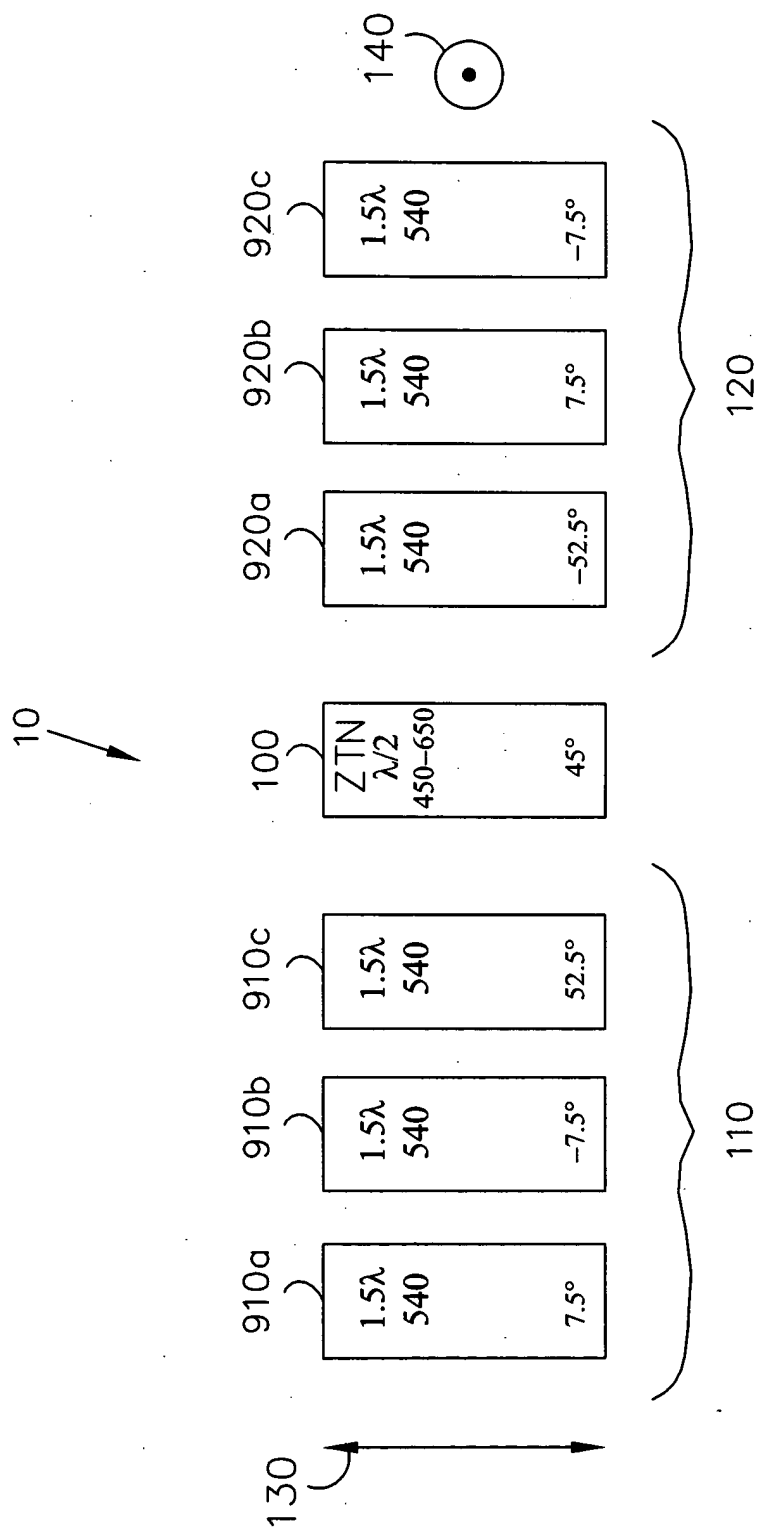


FIG. 10

10

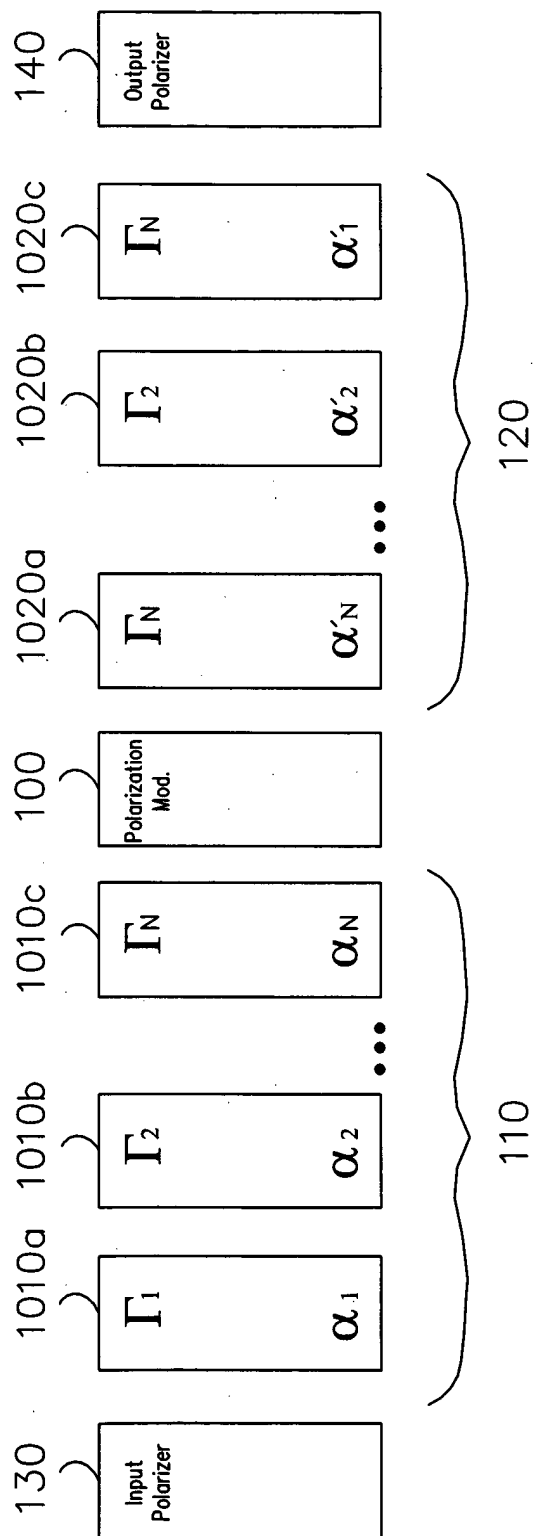


FIG. 11

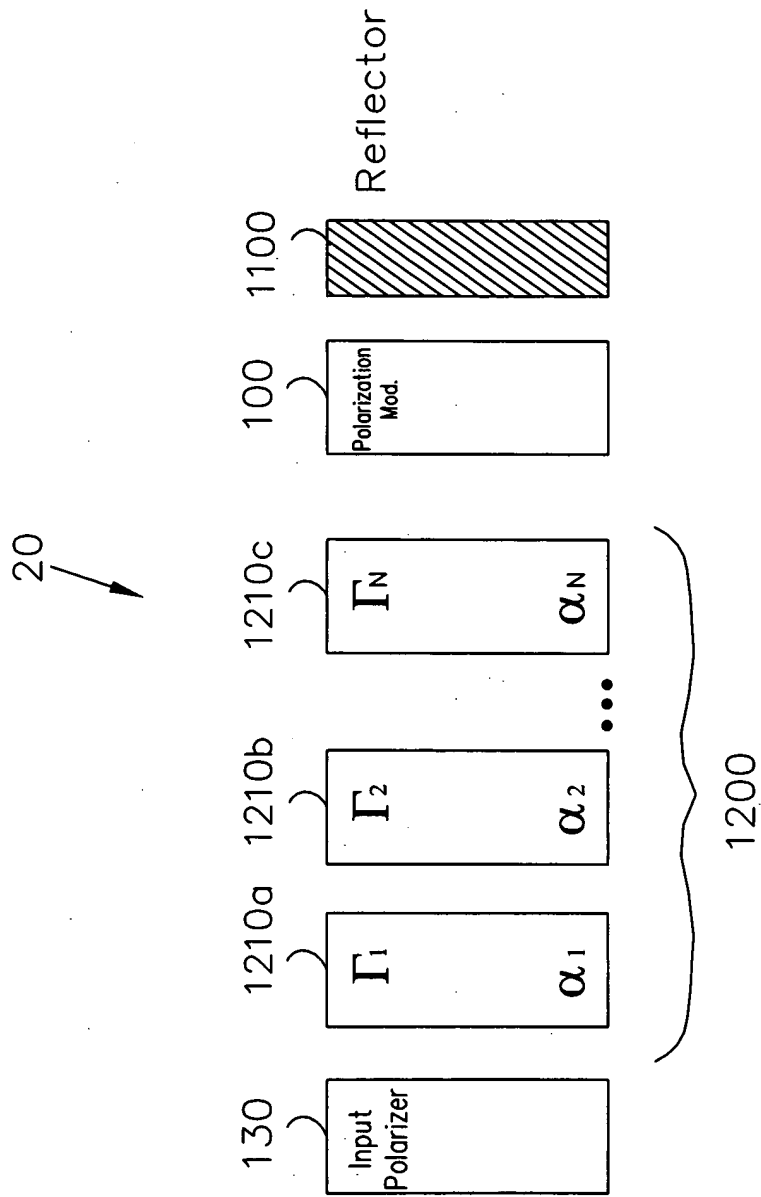


FIG. 12

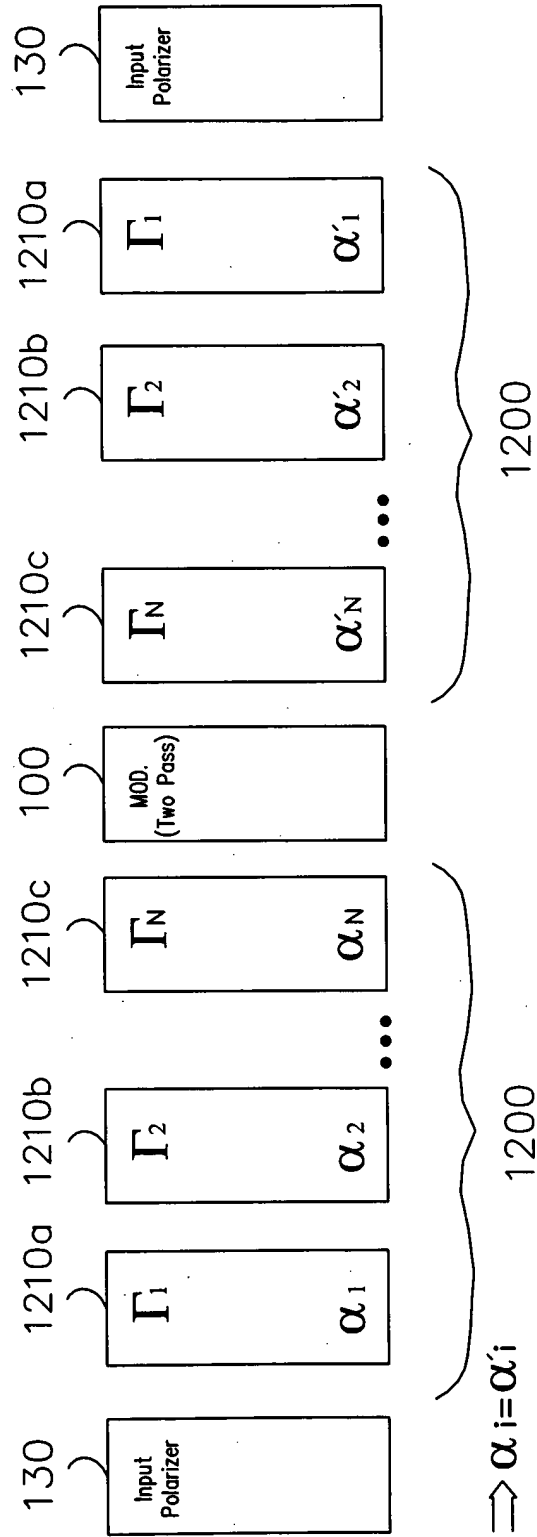


FIG. 13

Design #	α_1	α_2	α_3
1	7.5°	-37.5°	22.5°
2	7.5°	-30.0°	30.0°
3	7.5°	52.5°	-67.5°
4	15.0°	-45.0°	7.5°
5	15.0°	-37.5°	15.0°
6	15.0°	-30.0°	22.5°
7	15.0°	60.0°	-67.5°
8	22.5°	-30.0°	15.0°

FIG. 14

Magenta/White – Reflection Mode CSLM

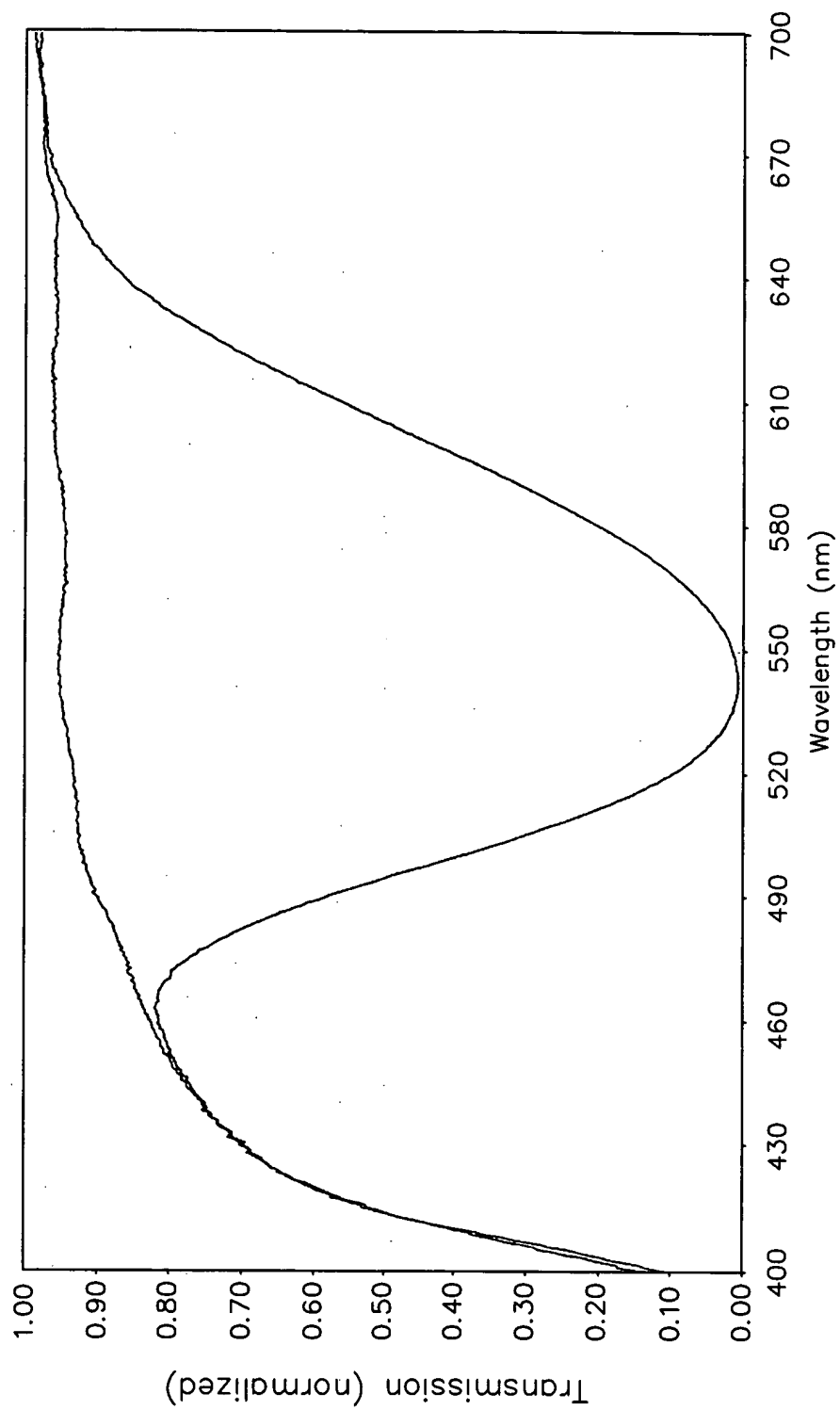


FIG. 15A

Yellow/White – Reflection Mode CSLM

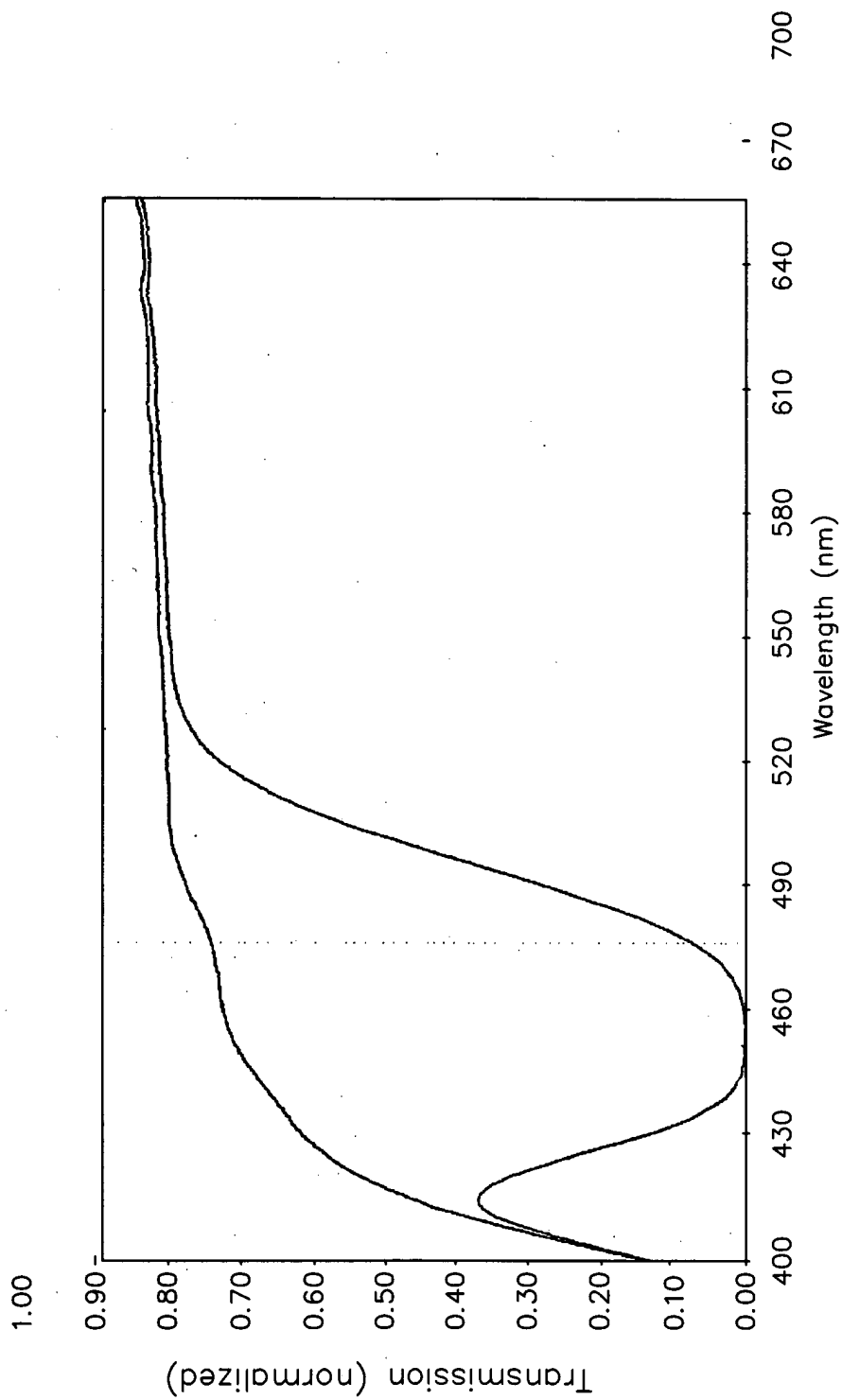


FIG. 15B

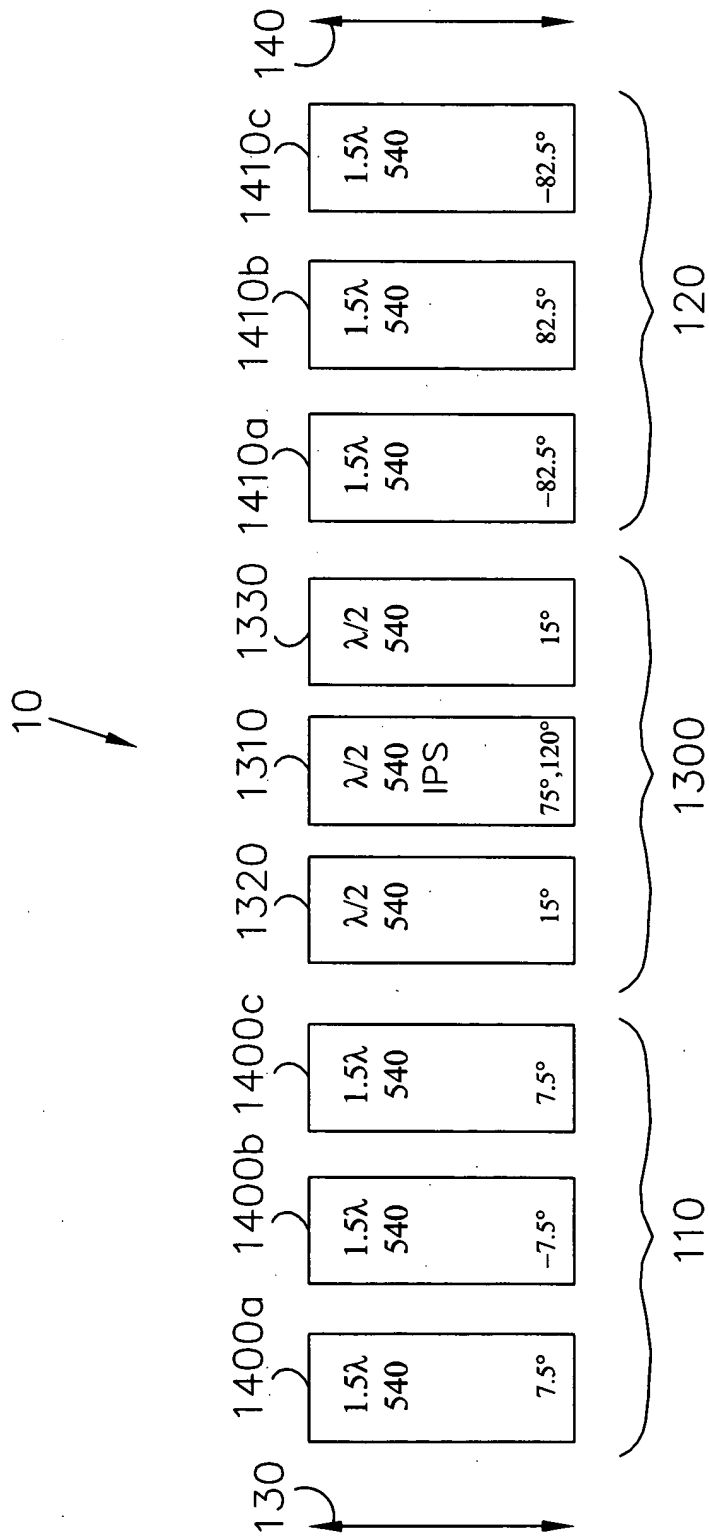


FIG. 16

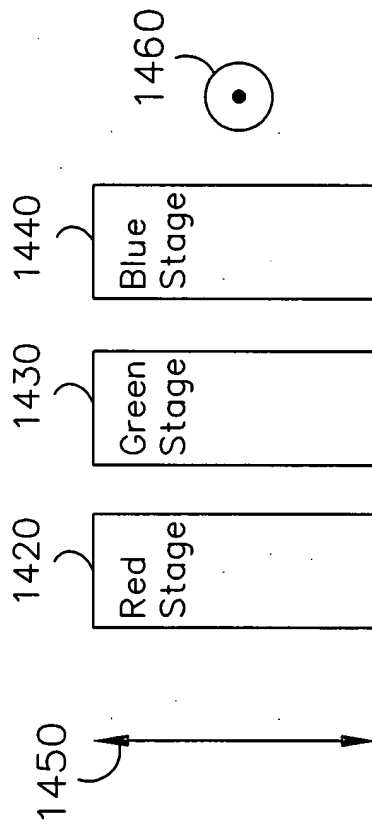


FIG. 17A

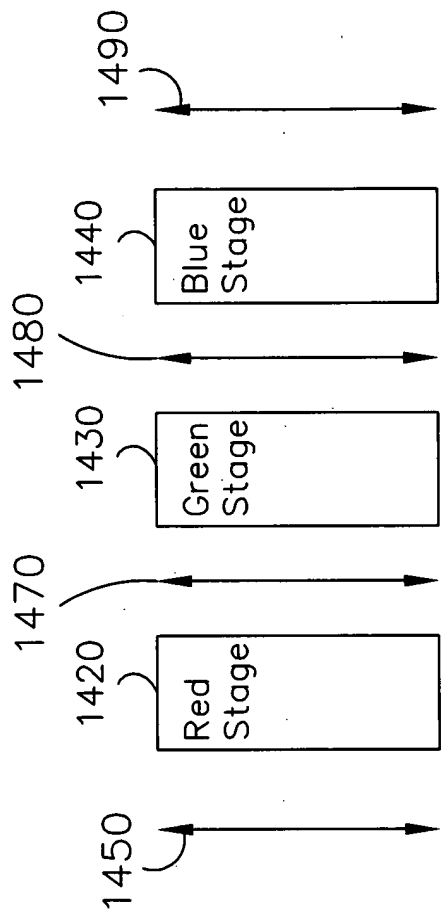


FIG. 17B

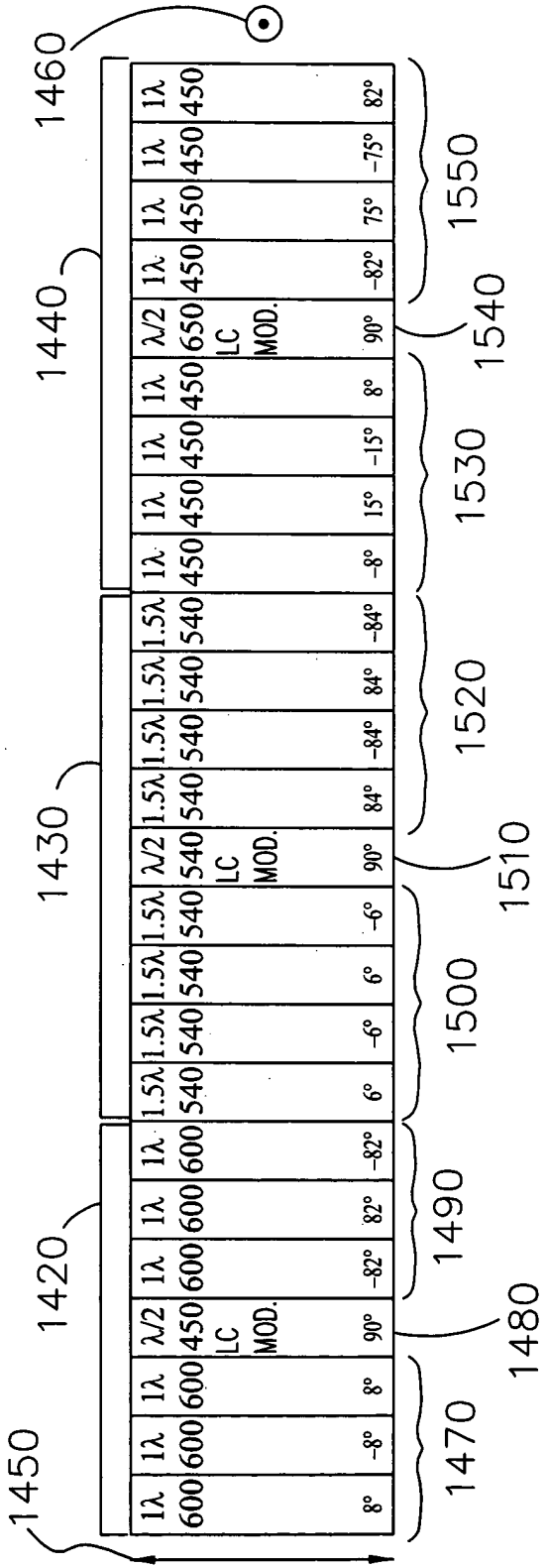


FIG. 18

CCS Truth Table

1 Blue Modulator	2 Green Modulator	3 Red Modulator	Output
Off	Off	Off	Black
Off	Off	On	Red
Off	On	Off	Green
On	Off	Off	Blue
On	On	On	White
On	On	Off	Cyan
On	Off	On	Magenta
Off	On	On	Yellow

FIG. 19

CSLM Sequencer – Red

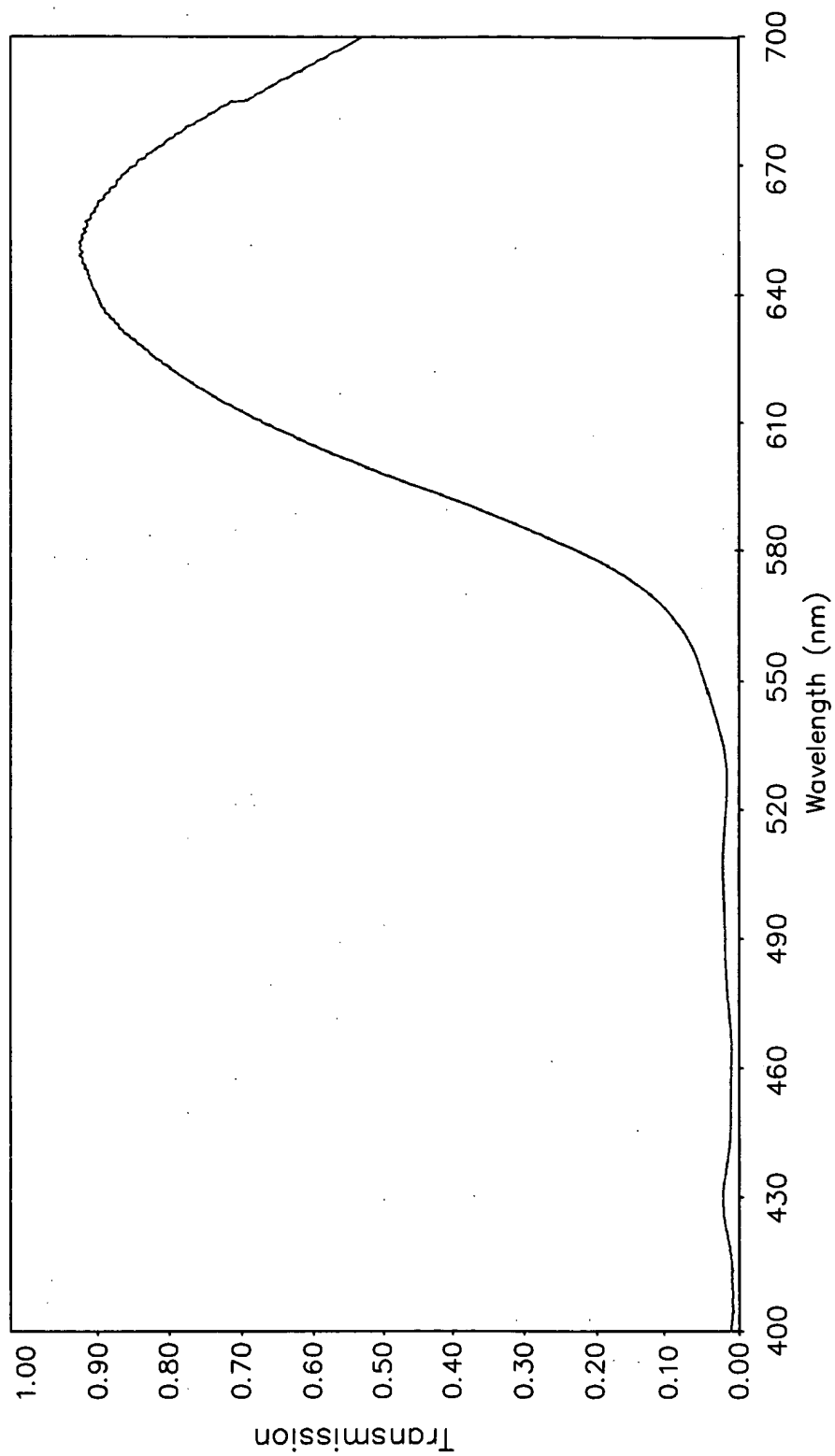


FIG. 20A

CSLM Sequencer – Green

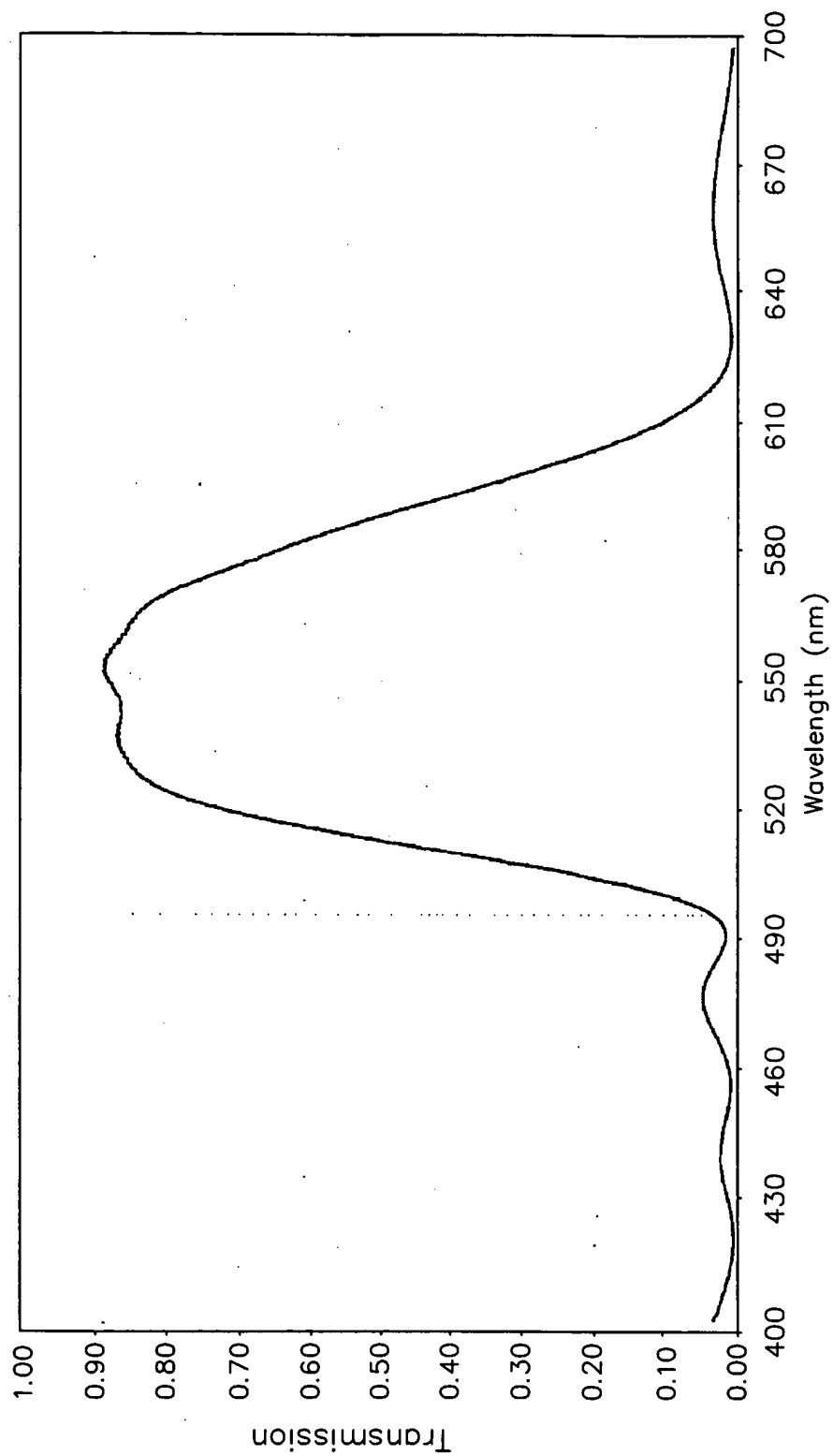


FIG. 20B

CSLM Sequencer – Blue

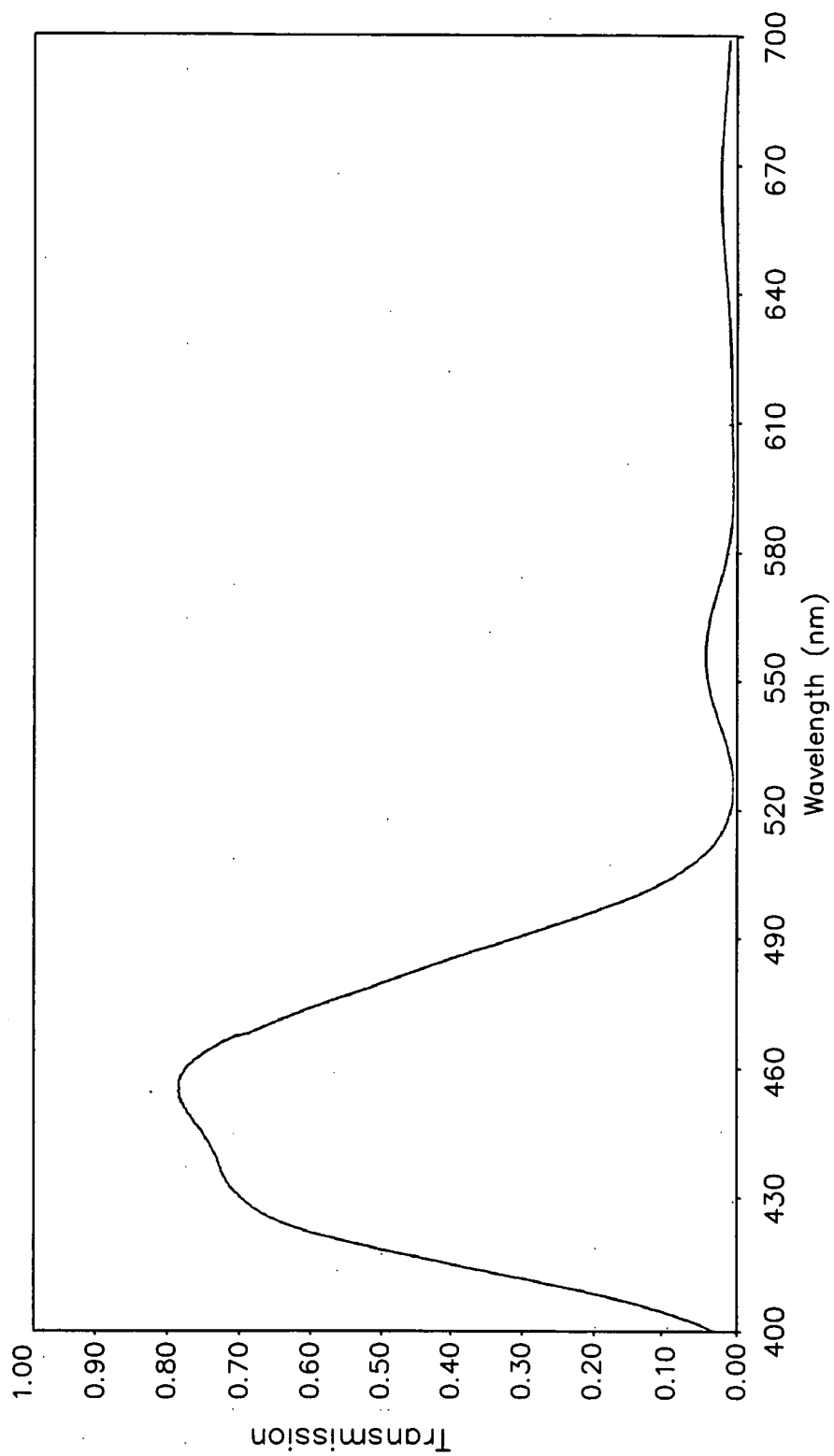


FIG. 20C

CSLM Sequencer – Cyan

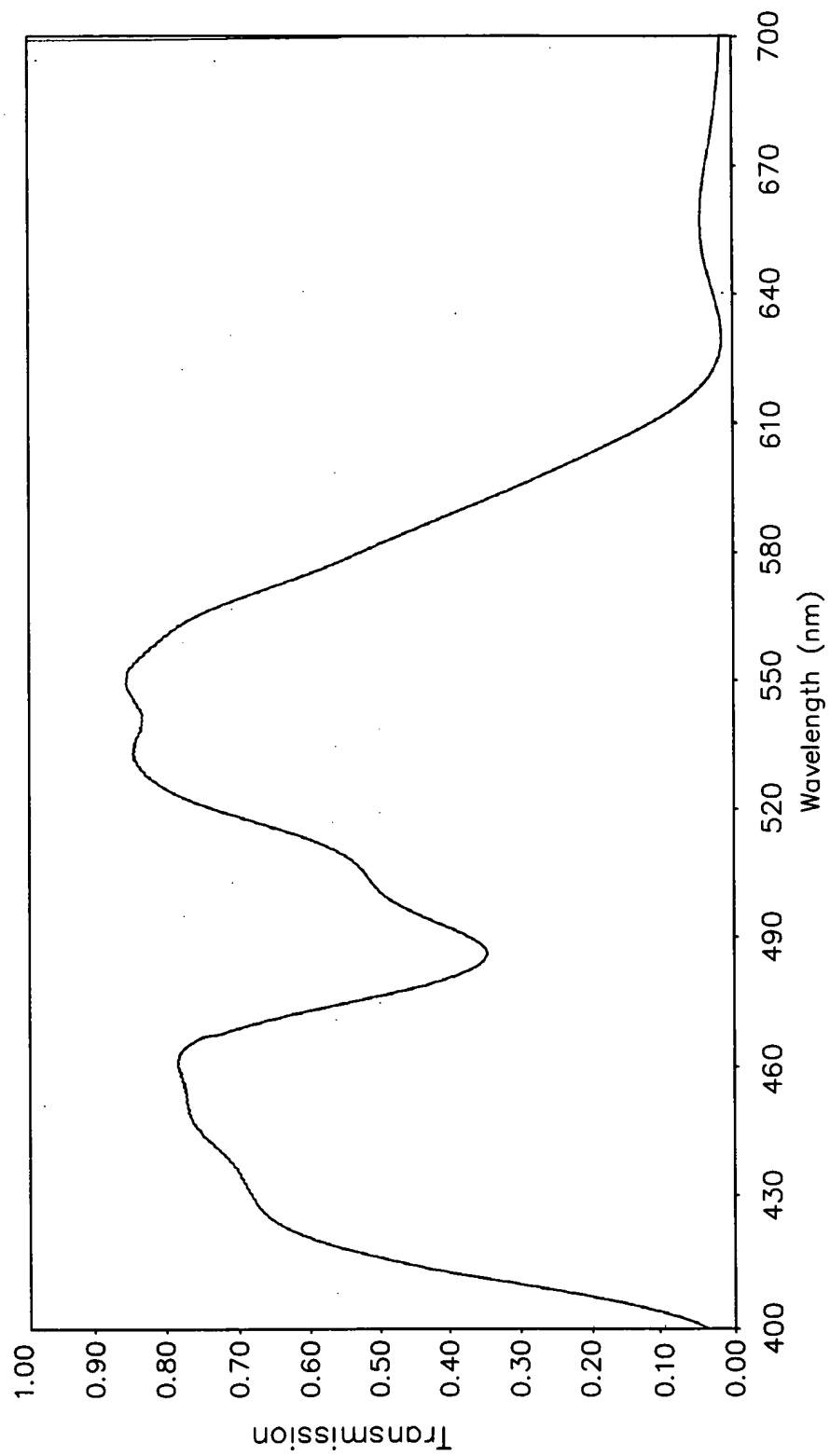


FIG. 21A

CSLM Sequencer – Magenta

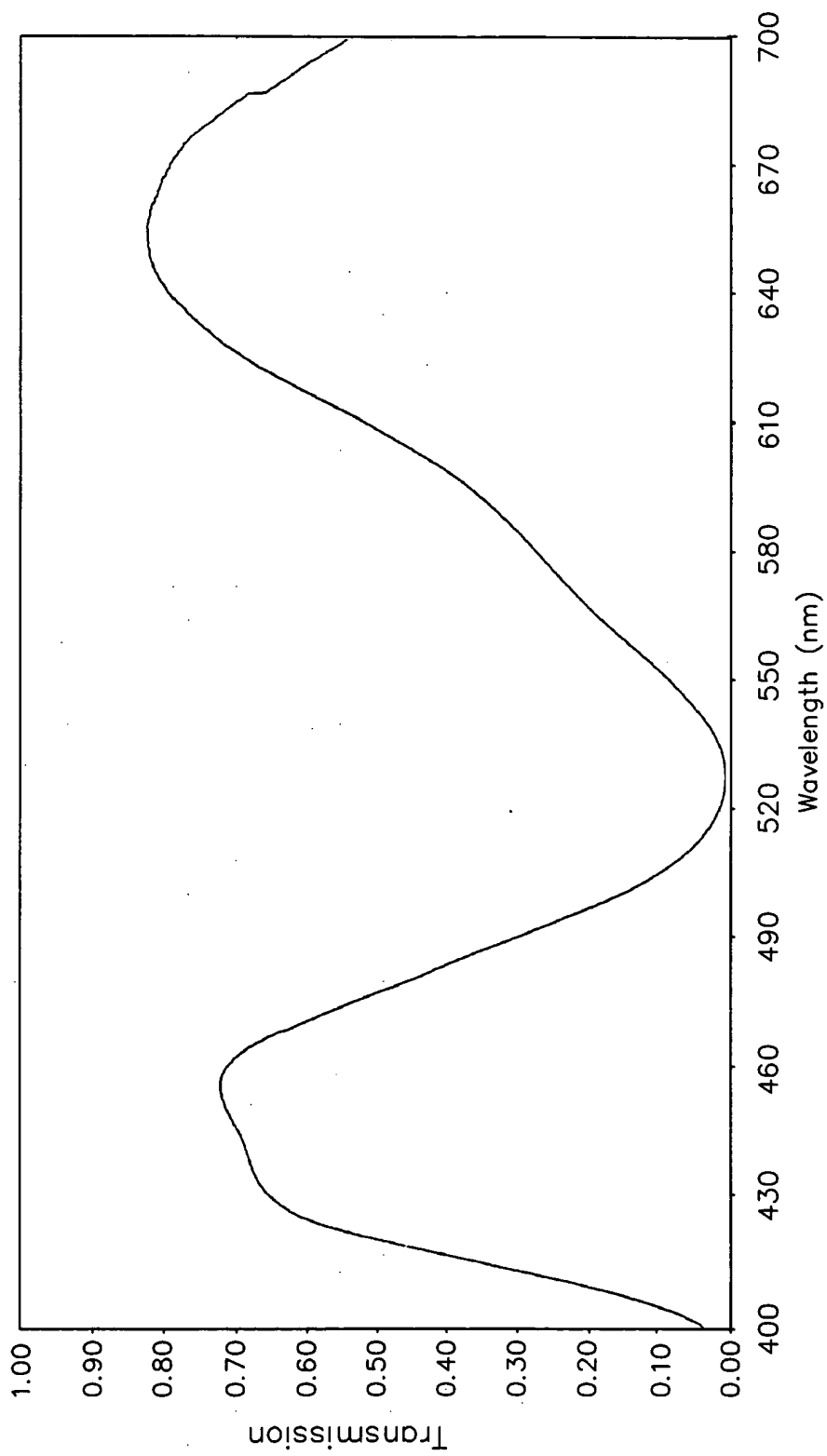


FIG. 21B

CSLM Sequencer – Yellow

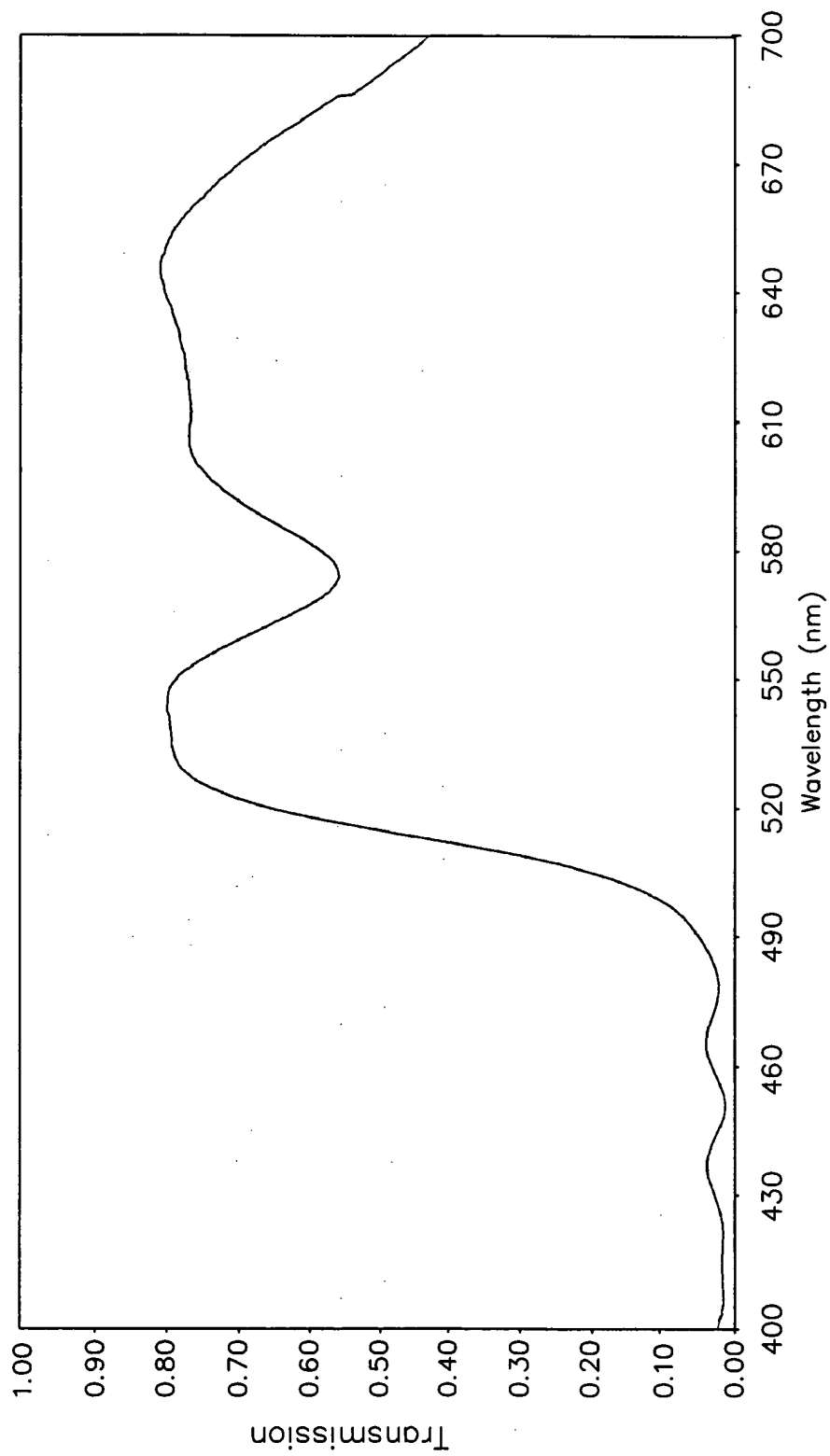


FIG. 21C

Blue/Black Stage

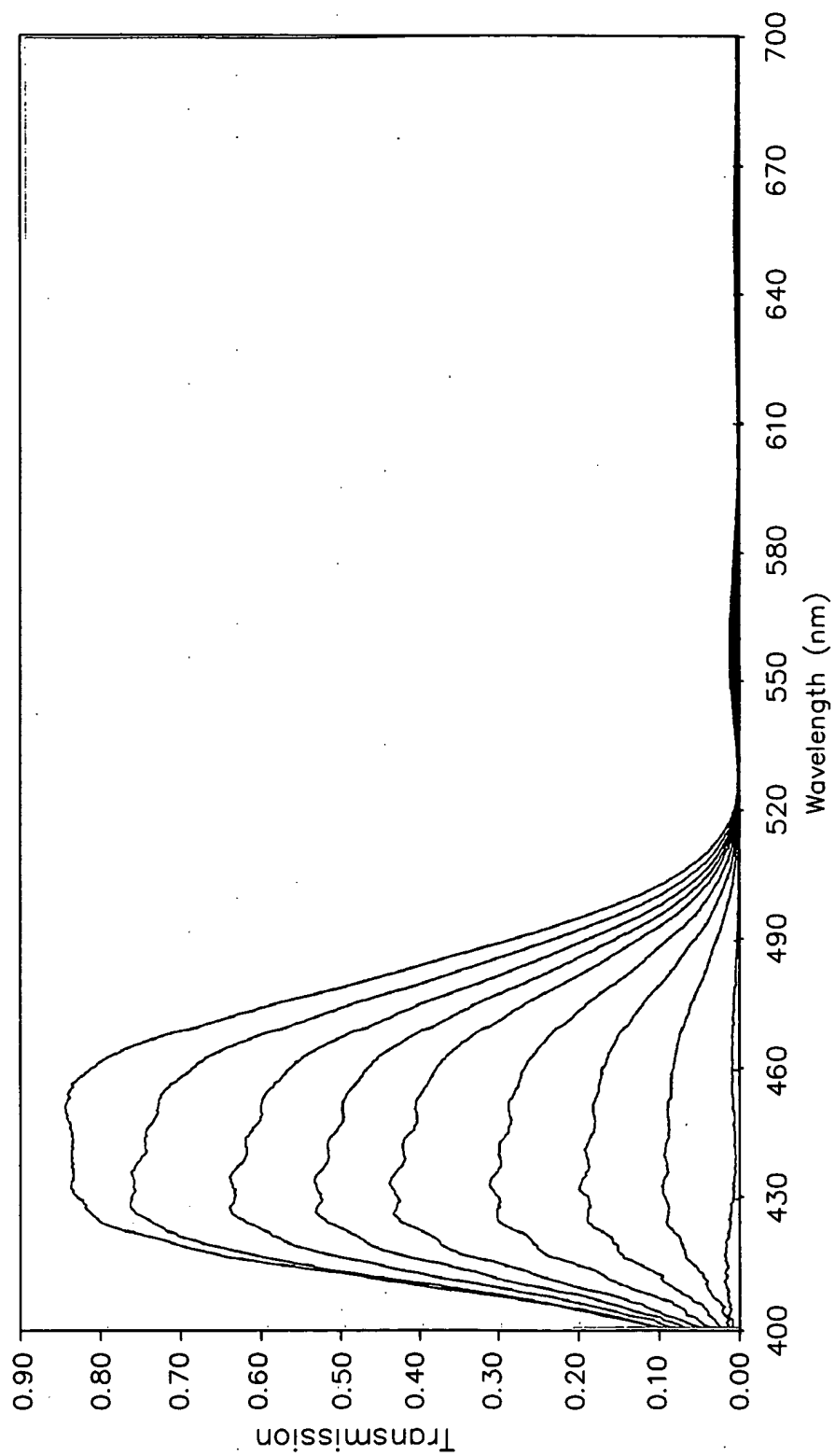


FIG. 22A

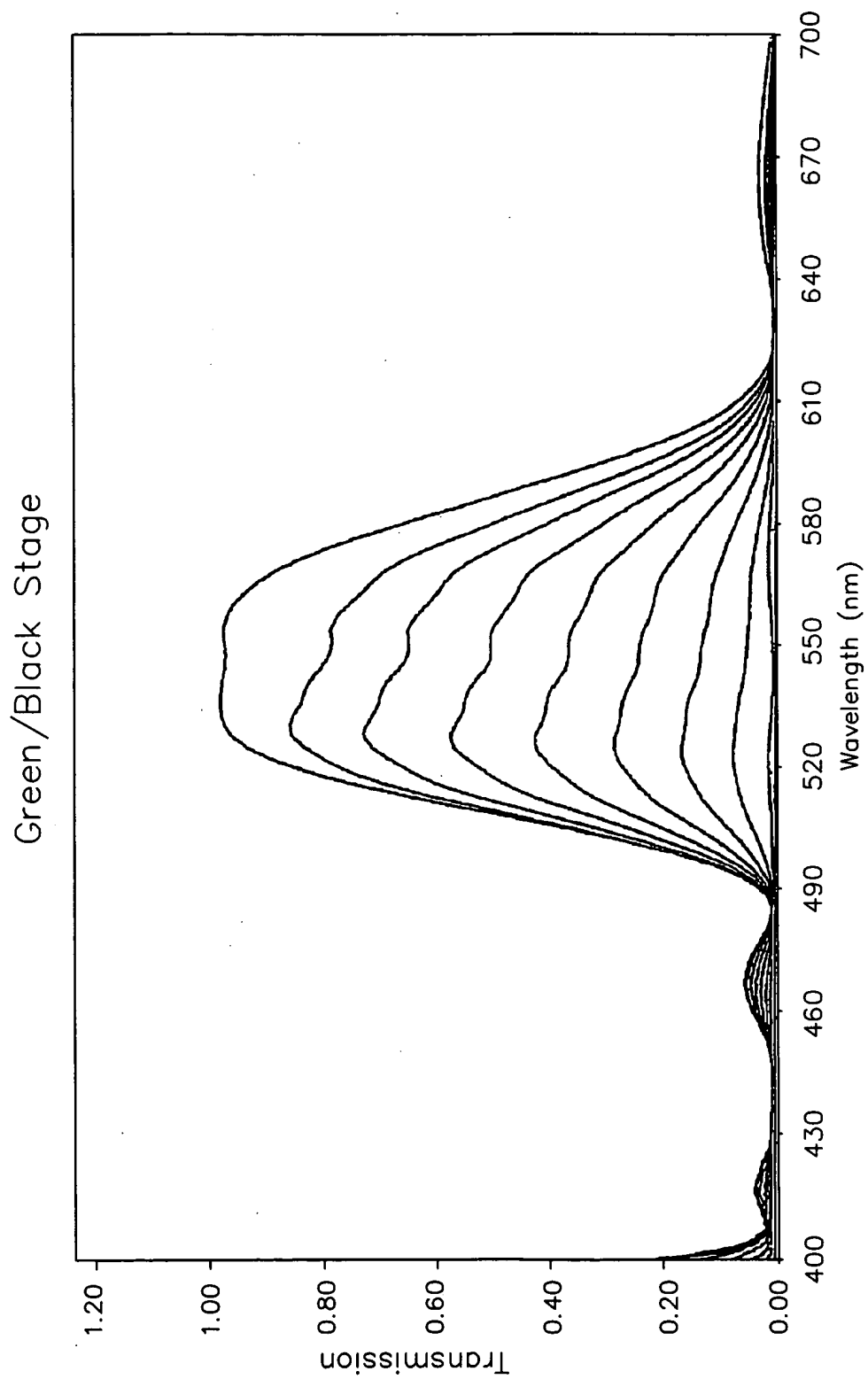


FIG. 22B

Red/Black Stage

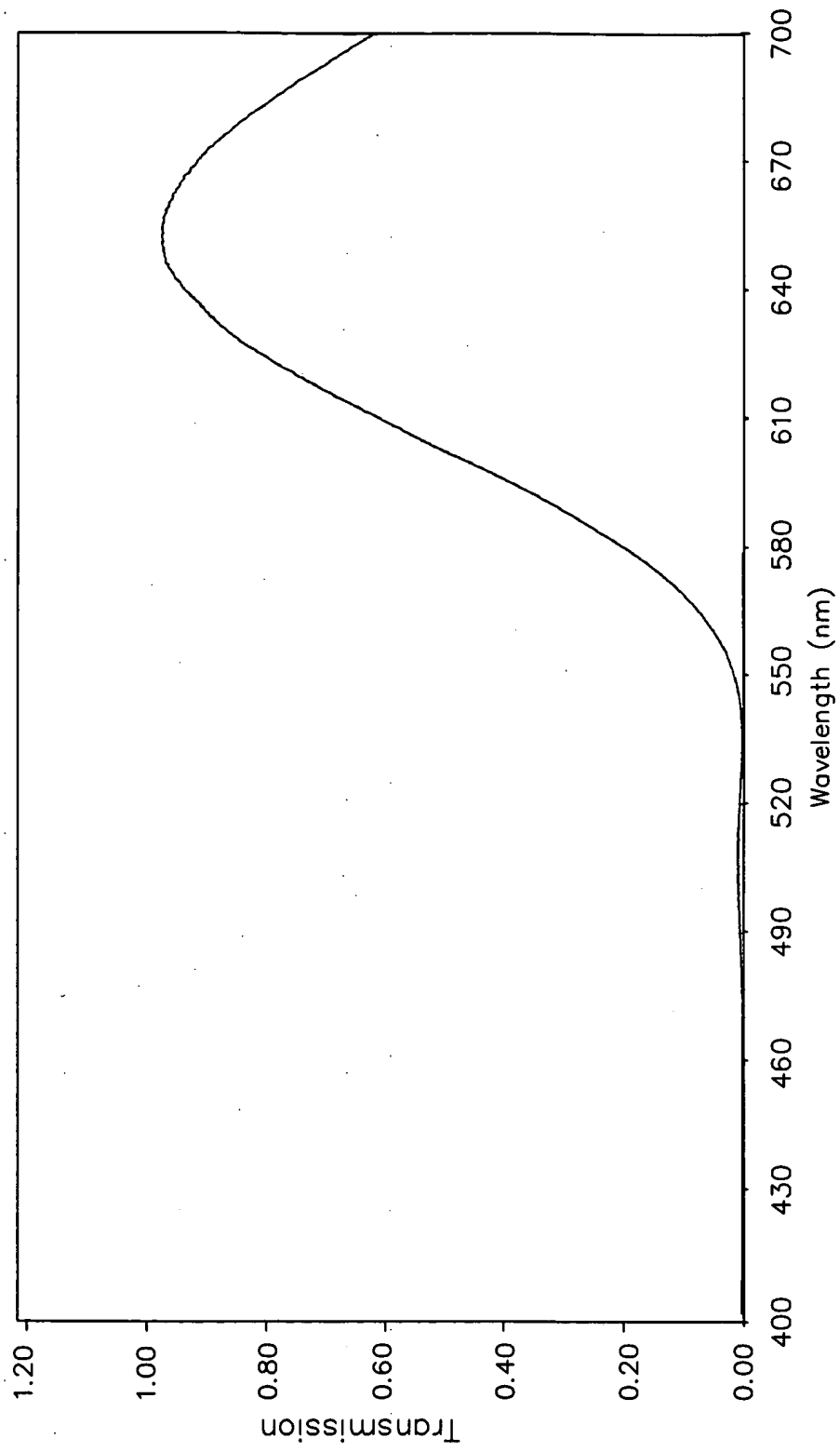


FIG. 22C

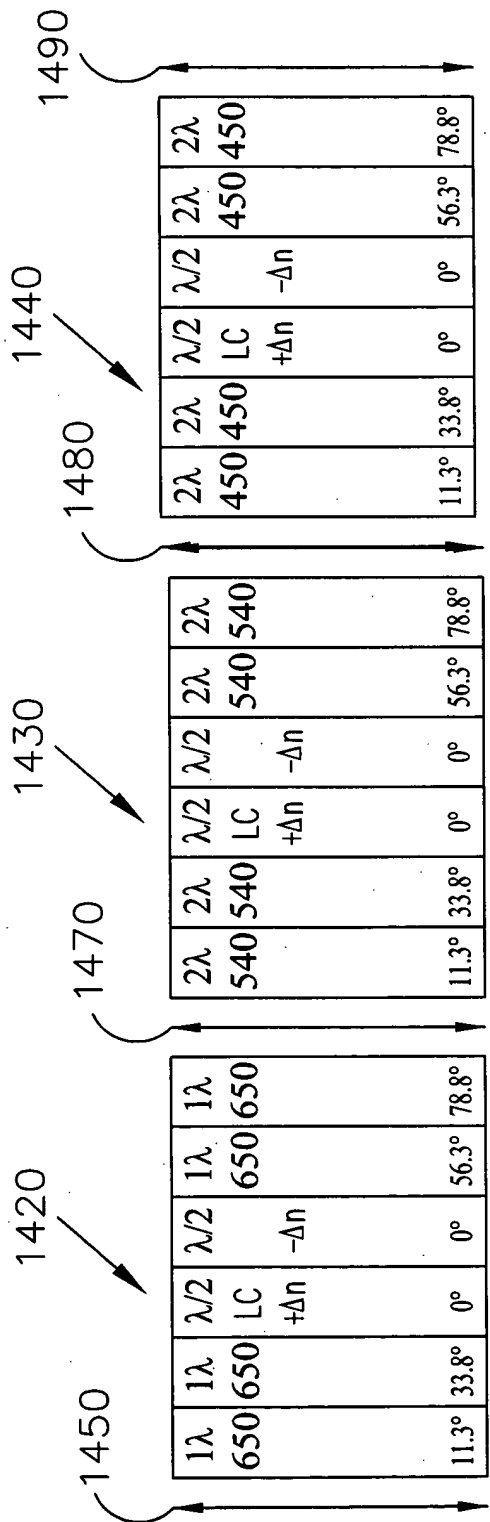


FIG. 23

Figure 1 is a schematic diagram of a three-stage optical system. The system consists of three stages, each with a waveplate and a modulator. The waveplates are labeled with their thicknesses (1450, 1470, 1480) and the modulators with their thicknesses (1420, 1430, 1440). The waveplates have parameters 1λ , 1λ , 1λ , 1λ and the modulators have parameters 8° , 8° , 82° , 82° . The waveplates are labeled with their thicknesses (1450, 1470, 1480) and the modulators with their thicknesses (1420, 1430, 1440). The waveplates have parameters 1λ , 1λ , 1λ , 1λ and the modulators have parameters 8° , 8° , 82° , 82° .

FIG. 24

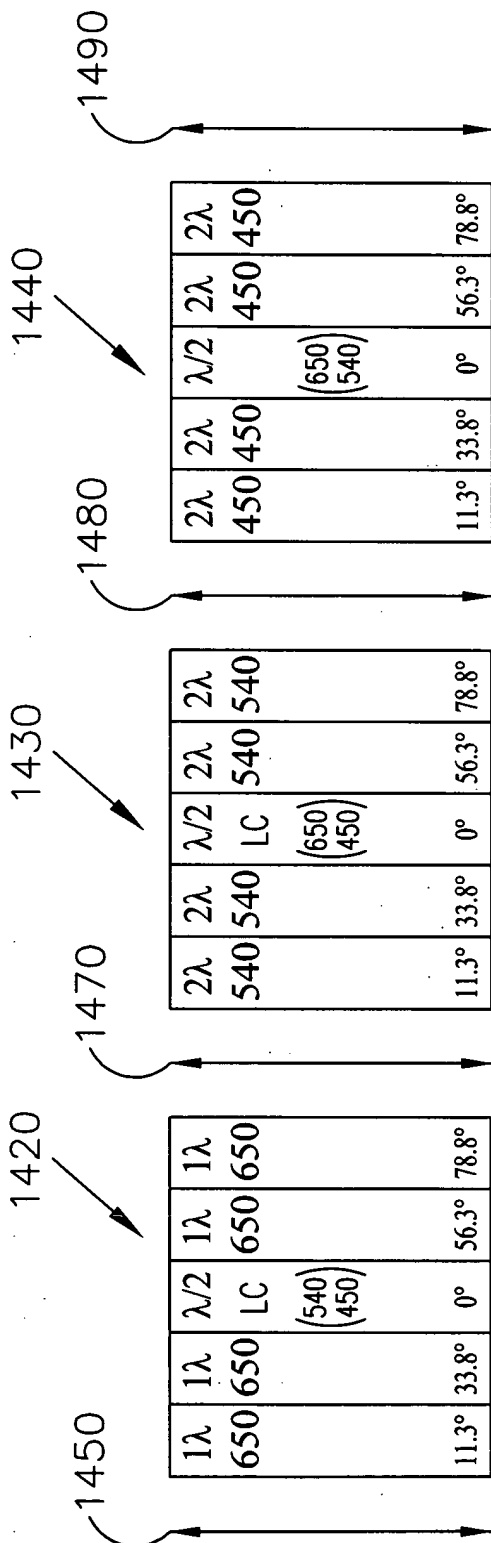


FIG. 25

Design Number	Number of Panels	Number of Paths	Number of Subframes	Number of Pixels	Display Type
1	1	1	1	3	R,G,B Color Filter Array
2	1	1	3	1	Full-Color Sequential
3	1	1	2	2	Hybrid Spatial/Sequential
4	2	1	1	2	Hybrid Common-Path/Spatial
5	2	1	2	1	Hybrid Common-Path/Sequential
6	2	2	1,2	1	Hybrid Sequential/Two-Path (i.e. Path 1: B/G, Path 2: R)
7	2	2	2,2	1	Hybrid Sequential/Two-Path (i.e. Path 1: B/R, Path 2: G/R)
8	2	2	1,3	1	Path 1: Full Color Sequential (Chrominance Path) Path 2: Monochrome (Luminance Path)
9	2	2	1	1,2	Hybrid Spatial/Two-Path (i.e. Path 1: B/G Pixels, Path 2: R)
10	2	2	1	1,3	Path 1: R,G,B Color Filter Array (Chrominance Path) Path 2: Monochrome (Luminance Path)
11	3	1	1	1	Full-Color Common-Path (i.e. Subtractive)
12	3	2	1	1	Hybrid Common-Path/Split-Path (i.e. Path 1: B & G Panels, Path 2: R Panel)
13	3	3	1	1	Conventional Three Panel
14	4	1	1	1	Full-Color Common-Path with Black Panel
15	4	2	1	1	Path 1: Full-Color Common-Path (Chrominance Path) Path 2: Monochrome (Luminance Path)
16	4	2	1	1	Path 1: Two-Color Common-Path (i.e. B & R Panels) Path 2: Two-Color Common-Path (i.e. G & R Panels)
17	4	3	1	1	Path 1: Two-Color Common-Path (i.e. B & R Panels) Paths 2, 3: Conventional Split-Path (i.e. G & R Panels)
18	4	4	1	1	Paths 1, 2, 3: Conventional Three Panel (Chrominance Path) Path 4: Monochrome (Luminance Path)

FIG. 26

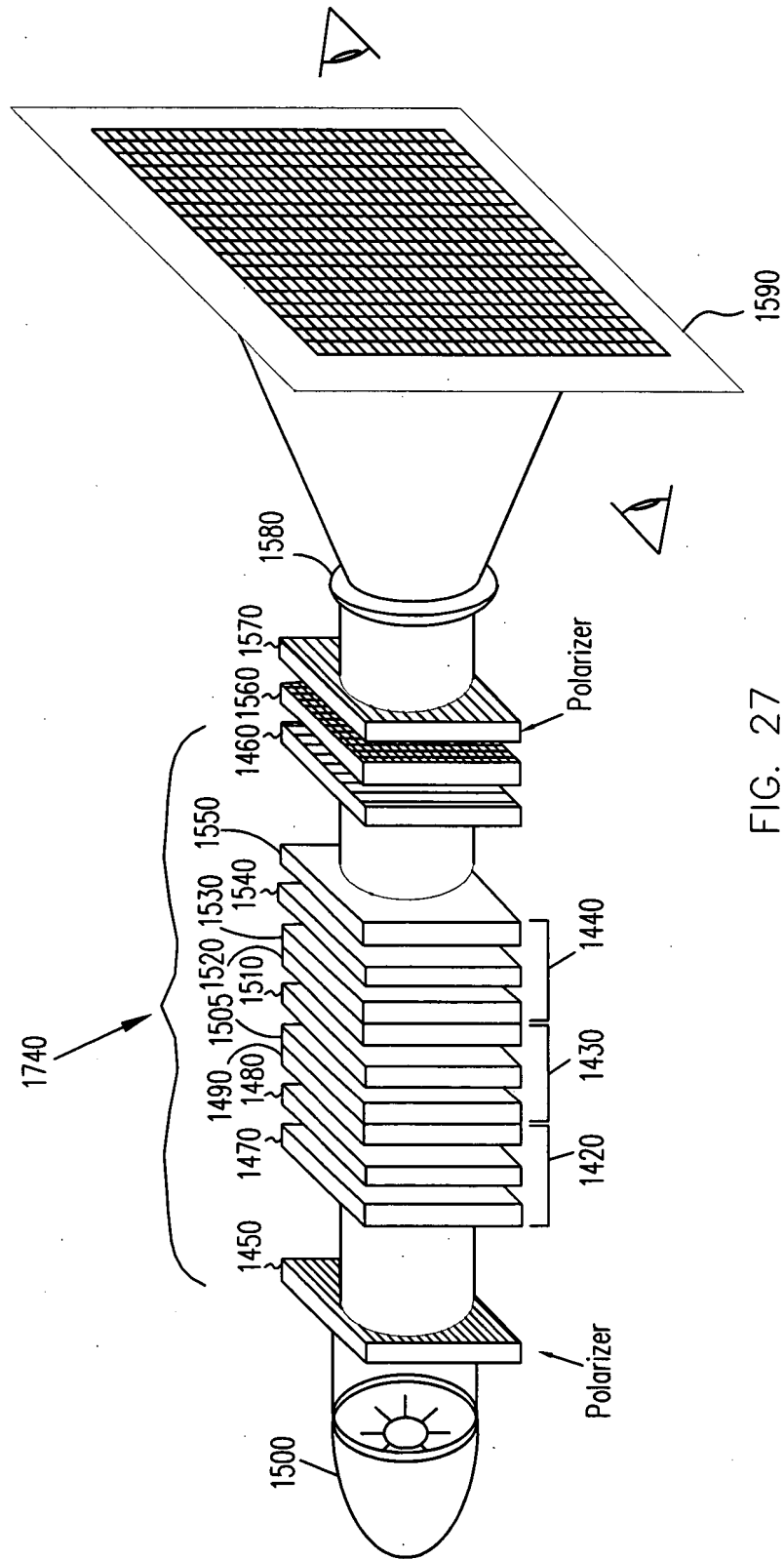


FIG. 27

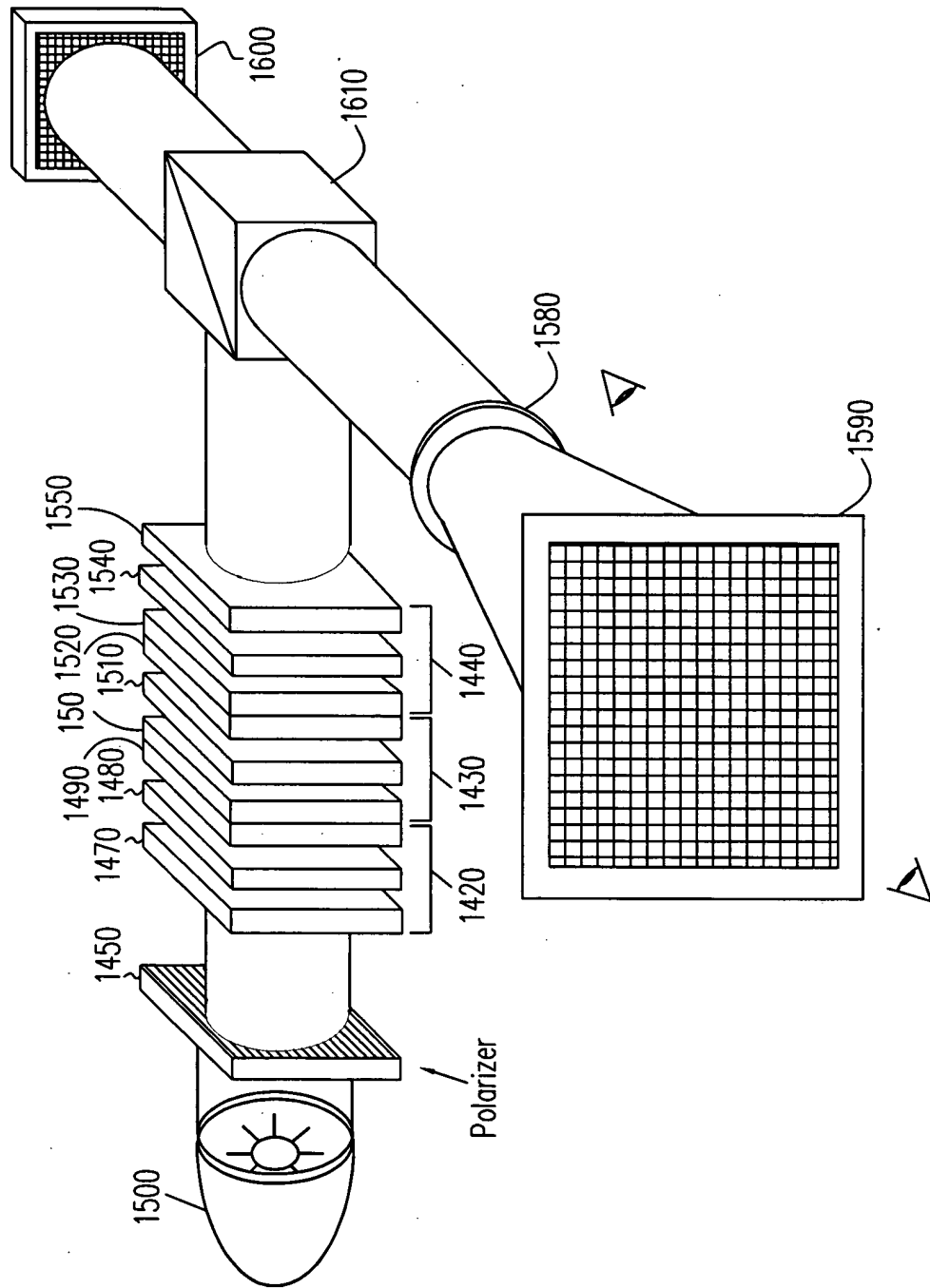


FIG. 28